



## U.S. DEPARTMENT OF ENERGY/ROCKY FLATS PLANT SITE ENVIRONMENTAL REPORT FOR 1992 (RFP-ENV-92)

Attached for your information is the 1992 Site Environmental Report for the Rocky Flats Plant. In addition to summaries of radiological and nonradiological monitoring in the vicinity of and on the Rocky Flats Plant (RFP), the report includes summaries of environmental activities on the site, a listing of the major environmental permits along with the compliance status of each, and description of National Environmental Policy Act activities.

We have also attached an environmental compliance self-assessment covering the period of January 1, 1993, to March 31, 1993. This is representative of our ongoing program to place greater emphasis on identifying potential environmental compliance issues at RFP and developing solutions to those problems in a timely and cost-effective manner to protect the health and safety of our employees and neighbors, while protecting the environment.

If you have any questions about the report, or would like to discuss particular items within the report, please contact the DOE Rocky Flats Office (Beth Brainard) at (303) 966-5993.

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Manager



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## **ENVIRONMENTAL COMPLIANCE ASSESSMENT ROCKY FLATS PLANT**

**January 1, 1993 - March 31, 1993**

### **National Environmental Policy Act (NEPA) Related Activities**

A generic Notice of Floodplain/Wetland Involvement for Environmental Restoration activities at RFP was published in the Federal Register on January 27, 1993. It covered proposed activities for sample collection, drilling and abandonment of boreholes and monitoring wells, and interim and final remedial actions to remove or treat contaminants that have been released to the environment in areas within floodplains or wetlands.

### **Ecological Trending and Wildlife Protection (DOE Order 5400.1)**

The final Ecological Monitoring Program Plan was transmitted to the Department of Energy, Rocky Flats Office (DOE, RFO) on January 20, 1993. This program will assess the abiotic and biotic media on a plantwide basis at multiple levels of ecological organization. Monitoring will provide "the big picture" on how these biotic components relate and interact among each other. It also will augment Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), and Colorado Hazardous Waste Act (CHWA) Operable Unit (OU) specific risk assessments conducted under the Inter-Agency Agreement (IAG), and will serve as a baseline to characterize ecological conditions at the plant to guard against potential future natural resource damage claims under CERCLA and as a guide for remedial decisions impacting biota.

A draft Habitat Mitigation Plan was delivered to DOE, RFO for review on April 14, 1993. This plan will provide a systematic approach for providing habitat and wetland mitigative measures required as a consequence of intrusive activities from environmental restoration and other construction activities at RFP. The plan lays out areas and acreage that may be disturbed at RFP, types of wetlands that can be developed as replacements, and areas of RFP to be considered for future mitigation development.

Surveys are conducted to determine the presence of the following.

- Migratory bird use of potential project activity locations
- Presence of Threatened and Endangered Species and locations of potential habitats
- Population numbers of native RFP wildlife species
- Vegetation types, species composition, and densities

### **Clean Air Act (CAA)**

#### **Colorado Air Quality Control Commission Regulation No. 15**

Colorado Air Quality Control Commission Regulation No. 15, "Regulations to Control Emissions of Ozone Depleting Compounds," became effective January 30, 1993. This regulation requires refrigerant reclaiming and recycling, preventive maintenance plans, semiannual inspections, equipment registration, refrigerant tracking, annual reporting, and registration of personnel handling refrigerants. Stationary refrigeration systems with a 500-horsepower (hp) or larger compressor must be registered with the state by July 1, 1993. Registration of smaller systems will be phased in every 6 months, ending with 100-hp systems by January 1, 1995.

Ozone-depleting substances are used throughout RFP for various cooling, refrigeration, fire protection, cleaning, and other activities. In order to assess the full impact these regulations will have on RFP operations and personnel, a comprehensive sitewide inventory of all refrigerant-using equipment is currently under way and is expected to be completed by April 1993. Other activities related to stratospheric ozone protection regulations include the additional purchase of refrigerant reclaimers expected in May 1993; a scope and estimate to plan and schedule the retrofit or replacement of 19 large chillers to use alternative refrigerants scheduled for completion in June 1993; registration with the state (by July 1, 1993) of RFP garage technicians who have been certified and authorized to operate motor vehicle air conditioner recovery equipment; and completion of a report, "Essential Uses of Ozone-Depleting Substances Proposed Chlorofluorocarbon Banking Program," for submittal to DOE, RFO and DOE Headquarters in February 1993.

### **Clean Water Act (CWA)**

#### **Colorado Water Quality Control Commission Water Quality Standards**

In February 1993, the Colorado Water Quality Control Commission re-adopted Segment 4 stream standards and adopted Segment 5 stream standards with temporary modifications for nine parameters on Big Dry Creek. The standards for eight parameters were quantified at ambient levels as determined through pooling the data in the record and assigning the 85th percentile value as representative. A numeric value for ammonia was not initially specified, but a temporary ambient numeric modifier for ammonia was designated by similar methodology. The standards became effective on March 31, 1993.

### **Toxic Substances Control Act (TSCA)**

One shipment of polychlorinated biphenyls (PCB) contaminated material was shipped offsite for disposal during the period of January - March 1993. The shipment included one transformer that had been removed from service, two drums of nonradioactive PCB wastes generated during removal of the transformer, and 852 kilograms of PCB oil. The material was shipped offsite on February 12, 1993. The transformer was removed from service in October 1992 following an earlier PCB release from the unit. The release was reported to the Environmental Protection Agency (EPA). Initial cleanup of the released PCBs was completed in accordance with the TSCA Spill Cleanup Policy (40 CFR, Subpart G). Ground remediation of the area is planned in the second half of 1993. Plans also are being developed for the ground remediation of 20 previously identified PCB contaminated sites throughout RFP.

RFP continues to store radioactively contaminated PCB waste beyond the 1-year storage time limit imposed by TSCA regulations. DOE has notified the EPA, Region VIII, that storage will be necessary until a commercial or DOE treatment and disposal facility capable of receiving this waste is identified. DOE and EG&G have requested meetings with EPA to consider options related to this issue.

An inventory to verify information on PCB items at RFP is in progress. Laboratory analyses are being performed to validate data on 65 transformers and suspect equipment owned by Plant Services. Additional areas and equipment will be evaluated for PCBs as identified by Operations Managers.

## **Resource Conservation and Recovery Act**

### **RCRA Part A and Part B Permit**

During the period January 1 through March 31, 1993, the Colorado Department of Health (CDH) partially approved one request for change to interim status. Revision 4 of the Combined Hazardous Waste, Low-Level Mixed Waste, and TRU Mixed Waste Part A permit application requested a change to interim status for a variety of additional EPA waste codes in a number of interim status units. The application was submitted in November 1992, and most of the additional EPA codes were approved by CDH in March 1993. CDH requested additional information on the remainder of EPA codes before approval is granted.

In January 1992, a public review meeting was held to discuss Permit Modification Request #12, which seeks to modify the Rocky Flats Plant Part B operating permit. Permit Modification Request #12, a Class III permit modification submitted to CDH in November 1992, will add 12 storage and treatment units to the existing permit.

### **RCRA Closure Plans**

All operating RCRA permitted and interim status units are required by RCRA regulations to have current closure plans on file at the facility and, in the case of permitted units, with the regulating agency. The closure plans for the 15 permitted units are included in the RFP RCRA Part B operating permit. The closure plans for most interim status units are included in Part B operating permit modification requests submitted to CDH or in preparation at RFP. The closure plans for the remainder of interim status units for which RFP will not be seeking a RCRA operating permit will be updated during 1993 and submitted to CDH for approval.

### **RCRA Groundwater Monitoring**

The 1992 Annual RCRA Groundwater Monitoring Report for Regulated Units at the Rocky Flats Plant was prepared and submitted to the CDH and EPA on March 1, 1993. Analysis and interpretation of groundwater monitoring data were used in the report to assess the impact on groundwater quality resulting from waste management activities at the RCRA units.

### **RCRA Contingency Plan**

The RCRA Contingency Plan was implemented four times during the first 3 months of 1993 for the situations described below.

- A release of a caustic solution of less than 1/2 teaspoon that was not cleaned up within 24 hours.
- Two releases of contaminated water that contained RCRA-regulated listed hazardous wastes.
- A release of 2 to 4 quarts of battery acid to an asphalt surface.

### **National Response Center (NRC) Notifications**

During the first 3 months of 1993, per the requirements of 40 CFR 302.6, four ethylene glycol/water mixture releases (less than 2 gallons) were reported.

Per the requirements of 40 CFR 110.10, there was one notification made of a sheen on a spill control pond that was reported during a major rain event. The presence of the sheen was not confirmed by trained water personnel. The sheen could have been from an earlier spill of mineral

oil that occurred some distance away, or from runoff from parking lots. Samples taken of the water indicated that the concentration of oil contaminants was within regulatory discharge limits.

#### **Section 304**

There were no releases of extremely hazardous substances or CERCLA hazardous substances that exceeded reportable quantities, had potential impact beyond RFP boundaries, and required notification to the State Emergency Response Commission (SERC) and Local Emergency Planning Committees (LEPCs).

#### **Settlement Agreement and Compliance Order on Consent No. 89-10-30-01 (commonly referred to as "Residue Compliance Agreement")**

Work continued on negotiating the amended Mixed Residues Compliance Order, upgrading mixed residue units, and developing closure plans for out-of-service mixed residue units. In addition, the CDH has recently identified a permit writer to work on the Mixed Residue Permit Modification, which was submitted to the CDH on June 30, 1992.

#### **Federal Facility Compliance Agreement (FFCA) for Land Disposal Restricted (LDR) Waste**

The Annual LDR Progress Report was submitted in March 1993. The report updates the status of LDR mixed waste issues at RFP.

#### **Inter-Agency Agreement (IAG)**

##### **OU 1 - 881 Hillside**

The field survey to define the radionuclide hotspots on the OU 1 881 Hillside began December 15, 1992, and concluded January 22, 1993. This work was initiated because of the discovery of a hotspot on the 881 Hillside after completion of the draft Remedial Investigation (RI) report. Two IAG milestones originally scheduled during the January-March period, the Final Phase III RCRA Facilities Investigation/Remedial Investigation (RFI/RI) report and the Draft Corrective Measures Study/Feasibility Study (CMS/FS) report, were extended to later in the year with approval from EPA and CDH.

The OU 1 Interim Remedial Action (IRA) Facility treated approximately 200,000 gallons of water during the quarter. All treated water meets discharge requirements. EPA proposed treating water contaminated with carbon tetrachloride from Building 559 sources in the OU 1 treatment facility. No final decision had been made by March 31, 1993.

##### **OU 2 - 903 Pad, Mound, East Trenches Area**

The March 12, 1993, IAG milestone for submittal of the Draft Phase I RFI/RI report was missed because of the delayed Bedrock Program. Fines and penalties may accrue at up to \$10,000 per week. The January 12, 1993, IAG milestone for delivery of the Final Pilot Test Plan, *In situ* Volatilization Technology, and the Final Soil Vapor Survey Work Plan, was met.

The OU 2 surface water IRA treatment facility treated approximately 1.6 million gallons of water during the quarter. The system operates 24 hours a day, 7 days a week.

### **OU 3 - Offsite Releases**

Negotiations continued with offsite landowners for access to surface soil sampling locations. Gaining access to offsite areas in order to complete field work has been an ongoing problem. The milestone for submittal of the Draft RI report scheduled in July 1993 will require an extension from EPA and CDH.

The US Fish and Wildlife Service (USFWS) identified a bald eagle nest northwest of Standley Lake. As a result, the RFO directed EG&G to postpone all field activities within a 1-mile radius of the nest. Three sampling activities remain to complete OU 3 field work.

### **OU 4 - Solar Evaporation Ponds**

Drilling and sampling continued within Pond 207A and within the Protected Area (PA). A draft IAG milestone extension letter to EPA and CDH was prepared on March 18, 1993, requesting IAG milestone extensions for the Draft Phase I RFI/RI report and Final Phase I RFI/RI report.

Three Technical Memoranda (TM) were completed on February 19, 1993: (1) TM #3, *Draft Environmental Evaluation*, (2) TM #2, *Modification to Field Activities*, and (3) TM #4, *Human Health Risk Assessment/Exposure Scenario*.

### **OU 5 - Woman Creek, OU 6 - Walnut Creek, OU 7 - Present Landfill**

Field work continued during January-March in these OUs. Several Technical Memoranda also were completed. OUs 5, 6, and 7 Environmental Evaluations are being performed under one contract to provide cost savings, improve coordination of activities, and eliminate potential redundancies.

### **Integrated OUs (8, 9, 10, 12, 13, 14)**

The Statement of Work and Purchase Requisition for the Industrial Area OUs (8, 9, 10, 12, 13, 14) was completed and delivered to the EG&G Procurement Department on February 19, 1993.

A subcontractor has been selected through the Master Task Subcontract process to implement the integrated OUs (8, 9, 10, 12, 13, 14). The scope of work is limited to nonintrusive field work, such as surface soil sampling and radiation surveys.

### **OU 11 - West Spray Field**

The final version of the proposal to rescope OU 11 field activities that was transmitted to RFO for review the week of December 11, 1992, remains under review. CDH project leads have verbally supported the outlined proposal and have agreed to participate with rescoping. RFO has approved official transmittal of the rescoping proposal outline.

Minor activities have begun, including establishing task baseline agreements with internal support personnel and a preliminary screening of current OU 11 data quality objectives.

### **OU 15 - Inside Building Closures**

The Technical Evaluation of proposals for implementation of the Phase I RFI/RI Work Plan was completed January 2, 1993. EPA and CDH comments on the revised Final Phase I RFI/RI Work

Plan were received on March 8, 1993. Only two comments were provided by the agencies along with conditional approval of the Work Plan based upon resolution of the comments. The comments are currently being addressed by EG&G.

## **OU 16 - Low-Priority Sites**

The No Further Action Justification Document for OU 16, Low Priority Sites, is still pending despite an expected approval date of November 20, 1992. A draft letter was prepared in March as documentation of the status of the project and the pending approval of the No Further Action Justification Document. The issue to be resolved among the DOE, CDH, and EPA is whether the administrative process to close out this OU is complete at this stage or whether the process needs to be carried through to a Record of Decision. The Final No Further Action Justification Document is the final action required by the IAG.

## **Sitewide Activities**

The Sitewide Annual Treatability Study Report, an IAG milestone, was completed and submitted on schedule on March 8, 1993. This report includes a summary of the status of all sitewide projects, a literature review of new and emerging technologies, and a summary of other environmental projects at RFP.

One of the most significant contributors to schedule impacts during the last 18 months was eliminated. The Environmental Restoration Sample Management Office worked with analytical subcontractors to reduce the radiochemistry sample backlog from approximately 400 samples to zero during this period.

Implementing the Master Task Subcontract (MTS) system resulted in a 36-day contract award cycle, verses the 80-100 day Basic Ordering Agreement system cycle. As of February 18, 1993, 20 MTS contracts worth \$5.6 million were awarded, and 22 purchase requisitions worth \$13.7 million were in the pre-award phase of the procurement cycle.

## **Special Assignment Team**

A follow-up to the 1989 Special Assignment Team (Tiger Team) assessment of RFP is scheduled in May 1993. The Progress Assessment Team is scheduled to be on plantsite April 19-23 for an initial briefing, followed by the Progress Assessment May 17-28. RFP continues to make progress on the 93 separate action plans developed to address findings that resulted from the 1989 Tiger Team visit. As of March 31, 1993, 39 actions plans were verified as complete, 35 plans were in verification, and 19 plans were open.

## **Emergency Planning and Community Right-to-Know Act (EPCRA)**

On March 1, 1993, RFP submitted the Tier II Emergency and Hazardous Chemical Inventory Forms report, which listed the quantities and locations of hazardous chemicals for the calendar year 1992, to the following agencies: Colorado Emergency Planning Commission, Jefferson County Emergency Planning Committee, Boulder County Emergency Planning Committee, and the Rocky Flats Fire Department (jurisdictional fire department).